

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017441**Date Inspected:** 24-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

**Bay 11**

This QA Inspector randomly observed the following work in progress in Bay 11:

FCAW welding of weld joint BK004A1-021-005 located on PCMK BK004A1-021, side plate to bike path deck. Welder was identified as 053316. QC was identified as ZPMC CWI Xu Le Feng (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Zhao Mao Mao (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-2232-TC-U4c-F. SMAW welding of weld joint BK004A5-018-135 located on PCMK BK004A5-018, corner insert to side plate. Welder was identified as 040723. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-P-2212-B-U2. See photo below.

ZPMC personnel performing ultrasonic testing (UT) on various interior connection plate weld joints on west tower, lift 5. See photo below.

**Bay 10**

This QA Inspector randomly observed the following work in progress in Bay 10:

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SMAW repair welding of weld joint NSD1-TL5-3F-F-28B located on PCMK north tower, lift 5, internal connection plates. Welder was identified as 500363. QC was identified as ZPMC CWI Zhao Chen Sun (QC2). Welding variables recorded by QC2 appeared to comply with WPS-485-SMAW-3G(3F)-repair as listed on ZPMC Weld Repair Report T-WR with no assigned number as presented to this QA Inspector and verbalized by QC2.

ZPMC personnel performing UT on various interior connection plate weld joints on north tower, lift 5.

SMAW welding of temporary lifting eye located on north tower, lift 5, skin C. Welder was identified as 050289. QC was identified as QC2. Welding variables recorded by QC2 appeared to comply with WPS-B-T-4213-TC-U5b-2.

### Heavy Dock

This QA Inspector randomly observed the following on the Heavy Dock:

No apparent welding related work was being performed on the Heavy Dock. All 4 towers' lift 3 were connected and positioned vertically on a base pedestal at end of the Heavy Dock. East, south, west, and north towers, lift 4 were positioned on top of east, south, west, and north towers, lift 3, respectively, on the Heavy Dock. The ZPMC 4000 ton floating crane was moored to the end of the Heavy Dock and sitting idle.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

No significant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Micheal Ng, 159-2184-5703, who represents the Office of Structural Materials for your project.

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**Inspected By:** Goulet, George

Quality Assurance Inspector

**Reviewed By:** Clifford, William

QA Reviewer